

IN THE CLAIMS

- 1 1. A display apparatus comprising:
2 a cathode having an electron emissive material;
3 a grid electrode positioned in proximity to the cathode, the grid electrode
4 having a plurality of grid portions each defining a pixel site; and
5 control circuitry for controlling each of the plurality of grid portions to
6 independently cause an emission of electrons from the electron emissive material at
7 each pixel site.
- 1 2. The display apparatus as recited in claim 1, wherein the plurality of grid
2 portions are each electrically isolated from each other.
- 1 3. The display apparatus as recited in claim 2, wherein the plurality of grid
2 portions are substantially coplanar with each other.
- 1 4. The display apparatus as recited in claim 1, wherein the plurality of grid
2 portions further comprises a first grid portion, a second grid portion, and a third grid
3 portion, and wherein the control circuitry is operable for activating the first, second,
4 and third grid portions individually from each other.

1 5. The display apparatus as recited in claim 4, wherein the plurality of grid
2 portions are substantially coplanar with each other.

1 6. The display apparatus as recited in claim 4, wherein the grid electrode
2 comprises a grid substrate, wherein the first, second, and third grid portions are
3 mounted on the grid substrate.

1 7. The display apparatus as recited in claim 6, wherein the first, second, and third
2 grid portions are electrically isolated from each other.

1 8. A display apparatus comprising:
2 a cathode having an electron emissive material deposited thereon;
3 a grid electrode having first, second, and third grid portions; and
4 a first control circuit for controlling activation of the first grid portion so as to
5 control an emission of electrons from the electron emissive material proximate to the
6 first grid portion;
7 a second control circuit for controlling activation of the second grid portion so
8 as to control an emission of electrons from the electron emissive material proximate
9 to the second grid portion;
10 a third control circuit for controlling activation of the third grid portion so as
11 to control an emission of electrons from the electron emissive material proximate to
12 the third grid portion,
13 wherein the first, second, and third control circuits operate to control the first,
14 second, and third grid portions independently from each other.

1 9. The display apparatus as recited in claim 8, wherein the first, second, and third
2 control circuits are operated in a matrix-addressable manner.

1 10. The display apparatus as recited in claim 8, wherein the first, second, and third
2 grid portions are substantially coplanar.

1 11. The display apparatus as recited in claim 10, wherein the first, second, and
2 third grid portions are electrically isolated from each other.

1 12. The display apparatus as recited in claim 8, wherein the electron emissive
2 material is a cold cathode.

1 13. The display apparatus as recited in claim 8, wherein the electron emissive
2 material is a hot cathode.

1 14. The display apparatus as recited in claim 8, wherein the first control circuit
2 operates to apply a voltage to the first grid portion to cause an emission of electrons
3 from the electron emissive material in proximity to the first grid portion, wherein the
4 second control circuit operates to apply a voltage to the second grid portion to cause
5 an emission of electrons from the electron emissive material in proximity to the
6 second grid portion, wherein the third control circuit operates to apply a voltage to the
7 third grid portion to cause an emission of electrons from the electron emissive
8 material in proximity to the third grid portion.

1 15. A display apparatus comprising:
2 a cathode; and
3 a grid electrode having a plurality of individually controllable grid portions for
4 controlling emissions of electrons from each pixel area of the cathode.

1 16. The display apparatus as recited in claim 15, wherein the grid portions are
2 controllable in a matrix-addressable manner.

1 17. The display apparatus as recited in claim 15, wherein the grid portions are
2 coplanar.

1 18. The display apparatus as recited in claim 16, wherein the grid portions are
2 actively addressed.